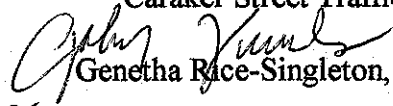



D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0004527, Baldwin County
STP-0004-00(527)
SR 243/US 441 at Swint Avenue and
Caraker Street Traffic Signal
OFFICE Preconstruction
DATE September 5, 2007
FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction
TO  SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Glenn Bowman
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Angela Alexander (file copy)
Babs Abubakari
Tennille District Engineer
BOARD MEMBER

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0004-00(527) Baldwin County
P.I. No.: 0004527

OFFICE: Traffic Operations

DATE: August 21, 2007

FROM:  Keith Golden, P.E., State Traffic Safety and Design Engineer

TO: Genetha Rice-Singleton

SUBJECT: Revised Project Concept Report

Attached is the original copy of the Revised Concept report for your further handling for approval in accordance with the Plan Development Process (PDP)

The proposed roundabout concept will be replaced with a span-wire traffic signal. The existing islands and curb and gutter will be utilized and striping will be used to reconfigure the intersection for a signal installation. The installation of the traffic signal will significantly minimize the traffic accident rate, and ultimately increase the safety of the intersection.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and/or the State Transportation Improvement Program (STIP)

Date 8/23/07


State Transportation Planning Administrator

KG:DC:pb

REVISED PROJECT CONCEPT REPORT

Need and Purpose:

Accident history data was obtained from the Milledgeville Police Department and the Georgia State Patrol. The information indicated that with increasing traffic at the intersection, there has been a concurrent increase in accident rate. Moreover, after classifying the types of collisions that have occurred, almost half of them are considered correctable by installing a traffic signal. Additionally, warrants 1, 9 and 11 were met in the traffic signal evaluation. Therefore, the installation of a traffic signal will serve as a safety improvement measure by: reducing traffic accidents, guiding traffic through the intersection and providing safe crossings for pedestrians. In addition, the installation of a traffic signal is a cost effective alternative, because no roadway improvements will be needed, and right of way will be minimal.

Project location: The project is located in Baldwin county at the intersection of SR243/US 441 with Swint Avenue and Caraker Street. The intersection is within the southern city limits of the City of Milledgeville, approximately 9 miles north of the Wilkinson County Line. The limits of the project are between M.P. 9.21 and M.P. 9.46 on SR 243/US 441, M.P. 0.58 and M.P. 0.64 on Swint Avenue, and M.P. 0.00 and M.P. 0.04 on Caraker Street.

Description of the approved concept: The approved concept report for STP-0004-00(527), PI 0004527 consists of the reconfiguration of the intersection at SR243/US 441 with Swint Avenue and Caraker Street, so as to construct a modern roundabout with a slip ramp on the southbound approach of SR 243/US441.

PDP Classification: Major ____ Minor X

Federal Oversight: Full Oversight (X), Exempt (), State Funded (), or Other ()

Functional Classification: Urban Minor Arterial

U. S. Route Number: 441 **State Route Number:** 243

Traffic (AADT) as shown in the approved concept:
Current Year (2008): 16,690 Design Year (2013): 19,010

Proposed features to be revised:

- The proposed intersection will utilize the existing typical sections; by maintaining the lane widths and curb work. Traffic movements will be enhanced by striping left and right turn lanes on SR 243 and Caraker Street, to accommodate the higher traffic volumes.
- The configuration of the intersection will remain the same, and a modern roundabout will not be constructed. Instead, a traffic signal will be installed to accommodate all approaches, rather than the existing stop condition.
- ADA-compliant Wheelchair ramps and concrete sidewalks will be installed in conjunction with the all crosswalks in the intersection.
- The construction of the modern roundabout would have required significant right of way impacts. The installation of a traffic signal will change right of way impacts from significant to minor.

Describe the revised feature(s) to be approved:

- *SR 243/US 441:* the proposed road typical section in the approved concept of three 12' lanes in each direction, tapering into two 16' lanes, will be revised into three 12' lanes on the southwest approach, which includes a right turn lane. The Northeast approach will consist of three 11' lanes at the intersection, plus a 12' continuous right turn lane. The section would then taper down to four 10' lanes
- *Swint Avenue:* the approved concept indicates two 12' lanes on Swint Ave, that taper into two 16' lanes, separated by a splitter island at the roundabout. This will be revised into two 12' lanes with no splitter island.
- *Caraker Street:* The approved concept proposes two 20' lanes in each direction on Caraker Street, which taper into two 16' lanes separated by a splitter island. This typical will be revised into a three lane section will provide an eastbound through lane, a westbound shared left and through lane, as well as a westbound right movement
- *The proposed roundabout concept will be replaced with a span-wire traffic signal.* The existing islands and curb and gutter will be utilized and striping will be used to reconfigure the intersection for a signal installation. The installation of the traffic signal will significantly minimize the traffic accident rate, and ultimately increase the safety of the intersection

Updated traffic data (AADT):

Roadway	Current Year (2007)	Design Year (2027)
SR 243/ US 441	8,130	13,670
Swint Avenue	2,790	4,695
Caraker Street	2,000	3,360

Programmed/Schedule:

P.E.: 2007 R/W: ~~2008~~ **Lump** Construction: ~~2008~~ **Lump**
pel *pel*

Revised cost estimates:

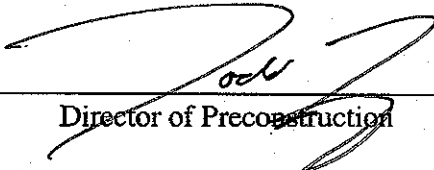
1. Construction cost including E&C,
2. Right-of-Way, and
3. Utilities


Is the project located in a Non-attainment area? No.

Recommendation: Recommend that the revised proposed concept be approved for implementation.

Attachments:

1. Scoring Results Form
2. Concept Sketch
3. Cost Estimate

Concur: 
Director of Preconstruction

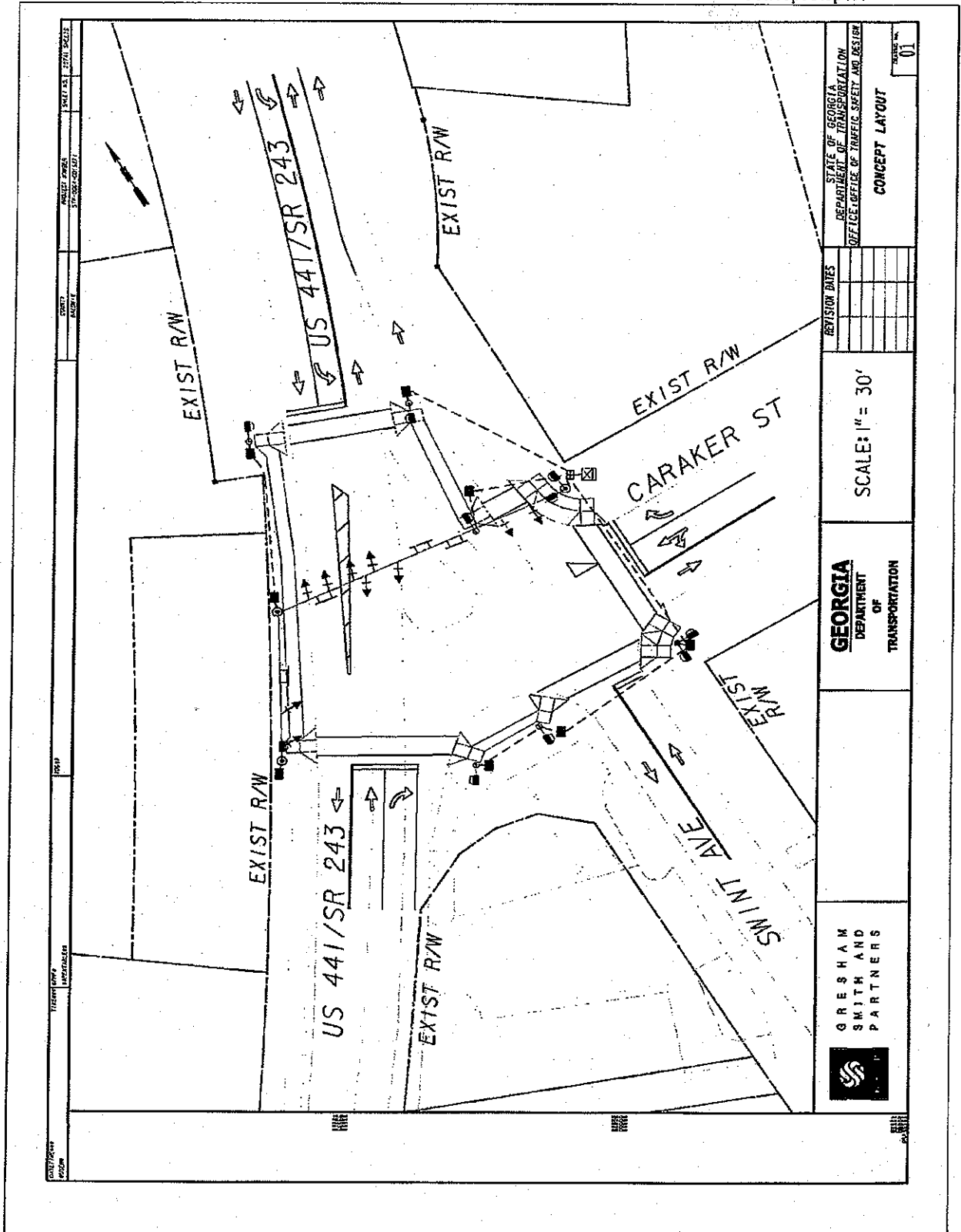
Approve: 
Chief Engineer

STP-0004-00(527)
Baldwin County - SR 243/US 441 @ Swint Ave & Caraker St


Item Code	Description	Unit	Quantities	Engineer Estimate	
				Unit Price(\$)	Amount (\$)
	Cabinet Controller Assemblies				
	A. Controller Unit, Model 2070L	Each	1	\$ 2,500.00	\$ 2,500.00
	B. Cabinet Assembly, Model 332	Each	1	\$ 5,250.00	\$ 5,250.00
	C. Load Switch Pack	Each	8	\$ 30.00	\$ 240.00
	D. DC Isolator	Each	3	\$ 33.50	\$ 100.50
	E. Loop Detector, 2-channel	Each	4	\$ 200.00	\$ 800.00
	F. Loop Detector, 4-channel	Each	0	\$ 400.00	\$ -
	G. Conflict Monitor, Enhanced	Each	1	\$ 700.00	\$ 700.00
	H. Battery Back up System	Each	1	\$ 500.00	\$ 500.00
	Loop/Pedestrian Detector Lead-in Wire (Shielded, Twisted/1000 FT)				
	A. 3 Pair, 18 AWG	Reel	2	\$ 300.00	\$ 600.00
	Signal Cable (14 AWG)				
	A. 7 Conductor, Per 1000 FT	Reel	2	\$ 400.00	\$ 800.00
	Loop Detector Wire (14 AWG, Stranded/1000 FT)	Reel	1	\$ 100.00	\$ 100.00
	One-way, 3-section, 12" Expanded View LED Signal Head, Plastic	Each	9	\$ 500.00	\$ 4,500.00
	One-way, 4-section, 12" Expanded View LED Signal Head, Plastic	Each	1	\$ 650.00	\$ 650.00
	One-way, 5-section, 12" Expanded View LED Signal Head, (Cluster), Plastic	Each	0	\$ 800.00	\$ -
	Backplate for One-way, 3-section, 12" Signal Head	Each	9	\$ 40.00	\$ 360.00
	Backplate for One-way, 4-section, 12" Signal Head	Each	1	\$ 65.00	\$ 65.00
	Backplate for One-way, 5-section, 12" Signal Head (Cluster)	Each	0	\$ 75.00	\$ -
	18 IN Pedestrian LED Signal Head, Polycarbonate	Each	10	\$ 450.00	\$ 4,500.00
	Pedestrian Pushbutton with Integrated Sign	Each	10	\$ 40.00	\$ 400.00
	Pedestal Pole, 10'	Each	6	\$ 200.00	\$ 1,200.00
	Steel Wire Strand Cable, 3/8 IN	Lin Ft	120	\$ 4.00	\$ 480.00
	Hardware for Span/wire Erection	Each	3	\$ 25.00	\$ 75.00
	Hardware for Rigid Mast Arm Erection	Each	0	\$ 30.00	\$ -
	Hardware for Pedestal Erection for 18 IN Pedestrian				
	Signal Heads, One-way Mounting	Each	5	\$ 45.00	\$ 225.00
	Hardware for Pedestal Erection for 18 IN Pedestrian				
	Signal Heads, Two-way Mounting	Each	1	\$ 115.00	\$ 115.00
	Hardware for Bracket Erection on Steel, Concrete or Wood Poles				
	for 18 IN Pedestrian Signal Heads, One-way Mounting	Each	1	\$ 70.00	\$ 70.00
	Hardware for Bracket Erection on Steel, Concrete or Wood Poles				
	for 18 IN Pedestrian Signal Heads, Two-way Mounting	Each	1	\$ 90.00	\$ 90.00
	Loop Saw Cut	Lin Ft	1,000	\$ 4.00	\$ 4,000.00
	R1-2 Sign with Type 7 Post	Each	1	\$ 200.00	\$ 200.00
	R3-2 Sign - No Left Turn	Each	0	\$ 100.00	\$ -
	R3-5 Sign	Each	0	\$ 100.00	\$ -
	R3-5A Sign	Each	0	\$ 100.00	\$ -
	R10-12 Sign - Left Turn Yield on Green	Each	0	\$ 100.00	\$ -
	R10-5 Sign - Left on Green Arrow Only	Each	0	\$ 100.00	\$ -
	R9-3A/R9-3B Sign with Type 7 Post - No Peds, Use Crosswalk	Each	0	\$ 200.00	\$ -
	R560-5, State Law - Stop for Pedestrians in Crosswalk Sign w/ Type 7 Post	Each	3	\$ 200.00	\$ 600.00
	Rspec#1 Sign with Type 7 Post - Keep Moving	Each	1	\$ 100.00	\$ 100.00
	Fiber Optic Snowshoe	Each	0	\$ 150.00	\$ -
	Labor and Equipment	Lump	Lump		\$ 20,000.00
	Misc. Materials to Complete Installation	Lump	Lump		\$ 1,200.00
150-1000	Traffic Control	Lump	Lump		\$ 10,000.00
163-0232	Temporary Grassing	Acre	0.010	\$ 530.00	\$ 5.30
163-0240	Mulch	Ton	1	\$ 204.00	\$ 204.00
165-0010	Maintenance of Temporary Silt Fence, Type A	Lin Ft	300	\$ 1.00	\$ 300.00
171-0010	Temporary Silt Fence, Type A	Lin Ft	600	\$ 1.80	\$ 1,080.00
210-0100	Grading Complete	Lump	Lump		\$ 10,000.00
441-0104	Concrete Sidewalk, 4 IN	Sq Yd	130	\$ 50.00	\$ 6,500.00
441-0748	Concrete Median, 6 IN	Sq Yd	0	\$ 65.00	\$ -
441-5004	Concrete Header Curb, 10 IN, TP 4	Lin Ft	0	\$ 21.00	\$ -
441-6022	Concrete Curb & Gutter, 6 IN x 30 IN, TP 2	Lin Ft	0	\$ 35.00	\$ -
441-6710	Concrete Curb & Gutter, 6 IN x 30 IN, TP 7	Lin Ft	0	\$ 25.00	\$ -

7/24/2007
 PI No. 0004527
 Revised Concept Report

615-1200	Directional Bore, 5 IN	Lin Ft	100	\$ 25.00	\$ 2,500.00
631-0021	Permanent Changeable Message Sign, Permanent Blank Out, TP 1	Each	0	\$ 500.00	\$ -
636-1020	Highway Signs, TP 1 Mail, Roll Sheeting TP 9	Sq Ft	50.00	\$ 20.00	\$ 1,000.00
639-2001	Steel Wire Strand Cable, 1/4 IN	Lin Ft	0	\$ 2.50	\$ -
639-4004	Strain Pole, TP IV	Each	3	\$ 5,000.00	\$ 15,000.00
647-1000	Traffic Signal Installation No. 1	Lump	Lump	\$ -	\$ 50,420.50
647-2120	Pull Box, PB-2	Each	20	\$ 125.00	\$ 2,500.00
647-2140	Pull Box, PB-4	Each	1	\$ 1,000.00	\$ 1,000.00
653-0110	Thermoplastic Pavement Marking, Arrow, TP 1	Each	16	\$ 60.00	\$ 960.00
653-0120	Thermoplastic Pavement Marking, Arrow, TP 2	Each	6	\$ 60.00	\$ 360.00
653-0130	Thermoplastic Pavement Marking, Arrow, TP 3	Each	2	\$ 60.00	\$ 120.00
653-0170	Thermoplastic Pavement Marking, Arrow, TP 7	Each	0	\$ 85.00	\$ -
653-0210	Thermoplastic Pavement Marking, Word, TP 1	Each	0	\$ 125.00	\$ -
653-1501	Thermoplastic Solid Traffic Stripe, 5 IN, White	Lin Ft	1,000	\$ 0.50	\$ 500.00
653-1502	Thermoplastic Solid Traffic Stripe, 5 IN, Yellow	Lin Ft	2,000	\$ 0.50	\$ 1,000.00
653-1704	Thermoplastic Solid Traffic Stripe, 24 IN, White	Lin Ft	75	\$ 3.00	\$ 225.00
653-1804	Thermoplastic Solid Traffic Stripe, 8 IN, White	Lin Ft	1,000	\$ 1.50	\$ 1,500.00
653-3501	Thermoplastic Skip Traf Stripe, 5 IN, White	GLF	0	\$ 0.50	\$ -
653-6004	Thermoplastic Traf Striping, White	Sq Yd	25	\$ 3.50	\$ 87.50
653-6006	Thermoplastic Traf Striping, Yellow	Sq Yd	0	\$ 3.50	\$ -
656-4001	Remove Existing Traffic Markings, Thermoplastic	Sq Yd	100	\$ 50.00	\$ 5,000.00
682-6219	Conduit, Nonmetal, TP 2, 1 IN	Lin Ft	20	\$ 4.12	\$ 82.40
682-6222	Conduit, Nonmetal, TP 2, 2 IN	Lin Ft	500	\$ 6.04	\$ 3,020.00
682-6233	Conduit, Nonmetal, Type 3, 2 IN	Lin Ft	300	\$ 4.00	\$ 1,200.00
687-1000	Traffic Signal Timing	Lump	Lump	\$ -	\$ -
700-6910	Permanent Grassing	Acre	0.020	\$ 900.00	\$ 18.00
700-7000	Agricultural Lime	Ton	0.125	\$ 65.00	\$ 8.13
700-8000	Fertilizer Mixed Grade	Ton	0.125	\$ 320.00	\$ 40.00
700-8100	Fertilizer Nitrogen Content	Pounds	100	\$ 2.50	\$ 250.00
935-1512	Outside Plant Fiber Optic Cable, Drop, SM, 12 Fiber	Lin Ft	0	\$ 2.00	\$ -
935-3603	Fiber Optic Closures, FOC Pre-Terminated, Type A, 12-Fiber	Each	0	\$ 700.00	\$ -
935-4010	Fiber Optic Splice, Fusion	Each	0	\$ 40.00	\$ -
935-8000	Testing	Lump	Lump	\$ -	\$ -
936-1001	CCTV System, Type B	Each	0	\$ 8,000.00	\$ -
936-8000	Testing	Lump	Lump	\$ -	\$ -
936-8500	Training	Lump	Lump	\$ -	\$ -
938-1100	Intersection Video Detection Assembly, Type A	Each	0	\$ 4,000.00	\$ -
938-8000	Testing	Lump	Lump	\$ -	\$ -
938-8500	Training	Lump	Lump	\$ -	\$ -
939-1190	Video Encoder, Type A	Each	0	\$ 6,000.00	\$ -
939-2300	Field Switch, Type A	Each	0	\$ 4,500.00	\$ -
939-2301	Field Switch, Type B	Each	0	\$ 8,000.00	\$ -
939-2305	Field Switch, Type C	Each	0	\$ 3,500.00	\$ -
939-2310	Field Switch, Type D	Each	0	\$ 4,500.00	\$ -
939-4040	Type D Cabinet with Base	Each	0	\$ 4,500.00	\$ -
939-8000	Testing	Lump	Lump	\$ -	\$ -
939-8500	Training	Lump	Lump	\$ -	\$ -
Intersection Total					\$ 114,880.83



DATE: 7/24/07	PROJECT NO: 0004527	PROJECT NAME: SW-200-001-01	DATE: 7/24/07
DESIGNED BY: [blank]	CHECKED BY: [blank]	APPROVED BY: [blank]	DATE: 7/24/07

 GRESHAM SMITH AND PARTNERS	GEORGIA DEPARTMENT OF TRANSPORTATION	SCALE: " = 30'	REVISION DATES					STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY AND DESIGN	CONCEPT LAYOUT	SHEET NO. 01